

HERMAN GIBB, PhD, 4-9-09

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IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE)
ENVIRONMENT C. MILES TOLBERT,)
in his capacity as the)
TRUSTEE FOR NATURAL RESOURCES)
FOR THE STATE OF OKLAHOMA,)
Plaintiff,)
vs.) 4:05-CV-00329-TCK-SAJ
TYSON FOODS, INC., et al,)
Defendants.)

THE VIDEOTAPED DEPOSITION OF
HERMAN GIBB, PhD, produced as a witness on behalf
of the Plaintiff in the above styled and numbered
cause, taken on the 9th day of April, 2009, in the
City of Tulsa, County of Tulsa, State of Oklahoma,
before me, Lisa A. Steinmeyer, a Certified Shorthand
Reporter, duly certified under and by virtue of the
laws of the State of Oklahoma.

EXHIBIT

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A P P E A R A N C E S

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1 what research -- the results of the research.

2 Q As of today, the method for determining
3 whether there is a risk to human health, which is
4 the accepted way to do it in this country, is to
5 apply the standards that the EPA has promulgated, is
6 that correct, when we deal with primary body
7 contact?

10:45AM

8 A Well, that's what, you know, was advanced in
9 1986. That's what we're using today. I think, you
10 know, to pull it back would be to say, well, states
11 say what do we do, we need to have something. So
12 that's what's being used. That doesn't mean that
13 it's the best we have or the best we can do. It's
14 what we have right now, and there's a need by states
15 to have some kind of a standard so it doesn't
16 necessarily say the standard is good or that we are
17 even -- and that the standard is even good at
18 predicting what the health risk is, but it is a
19 standard, and that's what states want to have. So
20 that's what we use.

10:46AM

10:46AM

10:46AM

21 Q Then what standard do you recommend that this
22 court apply in determining whether there is a risk
23 to human health due to the conditions found in the
24 Illinois River watershed?

25 A I'm not in a position to recommend a standard.

10:47AM

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1 I mean, I think that's, you know, the -- going to be
2 the result of the research that the agency is doing.

3 I mean, I wouldn't advance a particular standard
4 but -- but that's my answer.

5 Q Okay. Let's go to the more specific issues. 10:47AM

6 Earlier we talked about the fact that Salmonella
7 and -- that poultry is a known reservoir for
8 Salmonella and Campylobacter. What is meant by
9 reservoir?

10 A It means that they -- they have the bacterium 10:48AM
11 in them. They don't get sick from Salmonella but
12 they are a reservoir.

13 Q Okay, and both of those are enteric, that is,
14 they are in the feces of the birds; is that correct?

15 A They're in the gut. 10:48AM

16 Q Okay.

17 A I mean, they could be in the gut, you know,
18 but --

19 Q And they come out in the feces, do they not?

20 A Yeah. I presume, yeah, they would -- they 10:48AM

21 could come out of the feces, but, you know, I think
22 the -- you know, what the implication of that is how
23 long would they remain in the feces, how long would
24 they be viable, you know, after the feces is dropped
25 and so forth. So, yes, they would come out I 10:49AM

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1 A I think what it speaks to is the uncertainty
2 of the estimate.

3 Q Right, and the uncertainty suggests that there
4 may be some range around there which could be higher
5 or lower, a plus or minus type of indication; right?

01:44PM

6 A Well, there could be a range about it for
7 sure, but I also think that you can't take this
8 number -- as I referred to later in the report,
9 these numbers, you know, raised in the expert report
10 that was done, that magic numbers like these can
11 take on a life of their own and all of a sudden
12 become driven by a risk estimate that you can't even
13 -- that you can't really even verify.

01:45PM

14 Q Okay, and you later on in Paragraph 39 speak
15 to that. The last sentence of your Paragraph 39,
16 there is a certain degree of uncertainty and
17 variability associated with illness rates and
18 indicator densities, and the term risk level better
19 captures the true meaning of the concept.

01:45PM

20 A Uh-huh.

01:45PM

21 Q When you're talking about risk level,
22 you're -- you are, again, talking about that there's
23 a risk that approximately that many people may get
24 sick; right?

25 A No. I think what EPA is trying to say here is

01:46PM

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1 that people hear the term illness rate, so that
2 means, oh, well, you know, this is -- you know,
3 we're going to have this many, we're going to have
4 eight per thousand illnesses at this concentration
5 of E. coli or Enterococci, and what EPA is trying to 01:46PM
6 say here is that it's a risk level, and the risk
7 level could be theoretical essentially. It doesn't
8 mean that we can demonstrate that there are
9 illnesses that occur. It's just that from the data
10 we have estimated, we say this is a risk. We don't 01:46PM
11 tell you -- we're not saying this is -- that
12 diseases are necessarily going to occur. I mean, a
13 risk just captures it better, and that's why they
14 did that. They put in that terminology because they
15 think people were taking away from it more than it 01:46PM
16 deserved.

17 Q Is it fair to say that this eight in a
18 thousand is their best approximation of the risk?

19 A When you say their, it was --

20 Q The EPA's. 01:47PM

21 A When -- it was the approximation done by
22 DuFore and associates back in 1986, and it's what
23 was used, but when you say it's the best
24 approximation, it's -- you know, it's the only
25 approximation that's been done, but there are a 01:47PM

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1 considerable number of things that lead into how
2 they got to this number, and I describe that in the
3 report, that there -- you know, the studies were
4 done in 1986 at Keystone Lake and Lake Erie, but the
5 development of that number actually goes back into
6 the 1950s, even before that when they came up with
7 what's considered an acceptable range or acceptable
8 estimate. So, you know, the acceptable estimate has
9 a safety factor or a -- of two built into it.

01:48PM

10 The -- that -- you know, they had risks defined in I
11 think it was -- was -- along the Ohio River, and
12 they said, well, this is where an epidemiologically
13 discernible difference can be found at this
14 particular number, but that was total coliforms, and
15 then they came on later on and said we don't think
16 that total coliforms maybe are correct, we'll use
17 fecal coliforms, but they didn't have an estimate of
18 fecal coliforms. So ten years after the original
19 study, they go back into the Ohio River and sample
20 for fecal coliforms. They found that was about 10
21 -- I think it was 10 percent or some percentage of
22 the total coliforms. You know, now you're -- and
23 you're building on top of this, and then they came
24 up with, okay, this is the fecal coliforms that
25 causes the -- you know, where this discernible

01:48PM

01:48PM

01:49PM

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1 difference is, and we say, well, you know, we think
2 we better divide that by two, give it some
3 uncertainty, and now we come along later on and make
4 a relationship between the fecal coliforms, the
5 ratio of the fecal coliforms to the Enterococci or
6 the E. coli, and pretty soon you begin to see the
7 incredible amount of uncertainty that is built into
8 this estimate. Okay. So I mean for good reason
9 they said this is an approximate estimate.

01:49PM

10 Q Okay. The best they could do?

01:49PM

11 A It was what they did. You know, whenever you
12 say it's the best they could do, that means --
13 sounds like -- it's what they had at the time; they
14 put it all together. When you say it's the best,
15 it's what they have.

01:50PM

16 Q Okay, and that hasn't -- that particular
17 approximation they haven't changed or revised it,
18 have they?

19 A They gave it considerable thought. The
20 Congress has ordered them to do it. They've missed
21 it. They have millions of dollars in research going
22 in to improve that estimate. They know there's, you
23 know, there's some uncertainty and they've got to do
24 something about it, and they've been ordered to do
25 it.

01:50PM

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1 Q And it hasn't been done and you don't know the
2 results of that effort, do you?

3 A Well, I know that the result is that they're
4 spending a lot of money, and they expect by 2012 to
5 come up with an estimate. So I do know the result
6 of the effort. The agency missed their deadline.
7 Now they've been ordered again.

01:50PM

8 Q Okay.

9 A It wouldn't be the first time the agency has
10 missed a deadline.

01:51PM

11 Q There are two studies that you point to in
12 terms of the issue of the application of the water
13 quality standards where the pollution is from
14 animals. The Colford study and -- what was the
15 other one? Was it Calderon?

01:51PM

16 A Calderon.

17 Q Okay. Is -- do you have any other specific
18 studies that have looked at this issue?

19 A I don't know if there are. I mean, I don't
20 think since I've done my report there have been.

01:52PM

21 Q Okay.

22 A Or I mean, since I've done my report there may
23 have been, I don't know, but these were the ones
24 that I was aware of at the time I did the report.

25 Q Well, let's look at the Calderon study.

01:52PM

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C E R T I F I C A T E

STATE OF OKLAHOMA)
) ss.
COUNTY OF TULSA)

I, Lisa A. Steinmeyer, Certified
Shorthand Reporter within and for Tulsa County,
State of Oklahoma, do hereby certify that the above
named witness was by me first duly sworn to testify
the truth, the whole truth and nothing but the truth
in the case aforesaid, and that I reported in
stenograph his deposition; that my stenograph notes
were thereafter transcribed and reduced to
typewritten form under my supervision, as the same
appears herein.

I further certify that the foregoing 155
pages contain a full, true and correct transcript of
the deposition taken at such time and place.

I further certify that I am not attorney
for or relative to either of said parties, or
otherwise interested in the event of said action.

WITNESS MY HAND AND SEAL this 12th day
of April, 2009.

LISA A. STEINMEYER, CRR
CSR No. 386

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